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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,254	02/01/2002	Michael Stanford Showell	CM2003F	2507

27752 7590 11/08/2004

THE PROCTER & GAMBLE COMPANY
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EXAMINER

KUMAR, PREETI

ART UNIT PAPER NUMBER

1751

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,254

Applicant(s)

SHOWELL ET AL.

Examiner

Preeti Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Final Rejection

Response to Amendment

1. Claims 1-14 are pending. Claims 11-14 are newly added. Claims 1 and 13 are independent.
2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson et al. (US 5,837,663) in view of Bettiol et al. (US 6,440,911) is withdrawn in light of applicant's amendment to the claims.

Response to Arguments

3. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of applicant's amendment to the claims and the new ground(s) of rejection.

New Grounds of Rejection

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson et al. (US 5,837,663) in view of Andersen et al. (US 6,187,580).

Nicholson et al. teach a solid detergent composition useful for machine dishwashing. The product contains a first layer having a buffering system, a builder and an enzyme. Enzymes capable of facilitating the removal of soils from a substrate may also be present in an amount of up to about 10% by wt. Nicholson et al. teach that such enzymes include proteases and amylases. A second layer includes a peracid and an acidity agent in a continuous medium having a melting point in the range of from about 35 °C. to about 50 °C. The release order of the functional ingredients allows for a

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optimum bleaching of stains as well as removal of soil. See abstract and col.4, ln.58-60.

Specifically Nicholson et al. teach that the compositions may be in any conventional solid form useful in machine dishwashing and warewashing applications, but are preferably in the form of a tablet having at least two layers. The first layer of a two-layer tablet comprises from about 5 wt. % to about 90 wt. %, of a builder, an effective amount of at least one enzyme selected from the group consisting of a protease, an amylase and mixtures thereof, and a buffering system to deliver a pH in the wash water of about 9.0 to about 11.0. Optionally, a surfactant, a processing aid to allow a high strength tablet to be processed under relatively low compaction pressures, a disintegrant to aid in tablet dissolution and a lubricant to aid processing are present. The selection of buffer in the first layer of the tablet is such that when this layer dissolves, the wash pH lies between about 9.0 and about 11.0 and the level of acidity agent should be such that, after the second layer is released, the wash pH is between about 6.5 and about 9.0. A second layer of a two-layer tablet includes a peracid and a source of acidity in a continuous medium that has a minimum melting point of about 35.degree. C. and a maximum melting point of about 50.degree. C. See col.11, ln.65-col.12, ln.5. Nicholson et al. suggest the use of pectin gum as binders and disintegrants. See col. 11, ln.15-17.

Specifically regarding the compression pressure of sections 1 and 2 as recited by the instant claims, Nicholson et al. teach that the first layer of a two layer tablet includes from about 5 wt. % to about 90 wt. % of a builder, one or more enzymes, a buffering

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system, a surfactant, a processing aid to allow a high strength tablet to be processed under relatively low compaction pressures, a disintegrant to aid in tablet dissolution and a lubricant to aid processing are present. A second layer of a two-layer tablet includes a peracid and a source of acidity in a continuous medium that has a minimum melting point of about 35.degree. C. and a maximum melting point of about 50.degree. C. The peracid may be incorporated into the continuous medium in a number of ways, but preferably the peracid is initially granulated in combination with an exotherm control agent as well as a surfactant to enhance dissolution. A source of acidity can be added separately, either as is or as granulates or can be included within the peracid granule. Nicholson et al. teach a compaction pressure from about 1×10^6 kg/m² to about 3×10^7 kg/m². See col.15, line 11. Nicholson et al. provide motivation to modify the composition with builders which directly effects the pressure at which the tablet needs to be compacted.

Nicholson et al. do not specifically teach a detergent tablet comprising a pectate lyase as recited by the instant claims.

Andersen et al. teach a novel group of pectate lyases comprising the amino acid sequence Asn Leu Asn Ser Arg Val Pro (NLNSRVP) belonging to Family 1 of polysaccharide lyases have good performance in industrial laundering and textile detergent compositions. See abstract and example 11.

Specifically, Andersen et al. teach that the pectate lyase enzyme or enzyme preparation is suitable to incorporate into cleaning compositions, including laundry, hard surface cleaner, personal cleansing and oral/dental compositions, resulting in superior

cleaning performance, i.e. superior stain removal. The cleaning compositions may comprise a detergent ingredient selected from a selected surfactant, another enzyme, a builder and/or a bleach system. The cleaning compositions must contain at least one additional detergent component; the levels of detergent components thereof will depend on the physical form of the composition, and the nature of the cleaning operation for which it is to be used. Thus, the cleaning compositions can be liquid, paste, gels, bars, tablets, spray, foam, powder or granular. See col.22, ln.15-45.

Thus, it would have been obvious, to one of ordinary skill in the art, at the time the invention was made to modify the detergent tablet taught by Nicholson et al. by replacing the enzyme with a pectate lyase as disclosed by Andersen et al., with a reasonable expectation of success, because the teachings of Nicholson et al. in combination with Andersen et al. suggest a detergent tablet comprising carbohydrase enzyme in general and specifically pectate lyase enzyme for use in a similar detergent tablet for providing stain and soil removal. Furthermore, one of ordinary skill in the art would have been motivated to modify the teachings of Nicholson et al. because Nicholson et al. teach the utility of enzymes capable of facilitating the removal of soils from a substrate in an amount of up to about 10% by wt. and Andersen et al. teach that pectate lyase enzymes provide superior stain removal.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

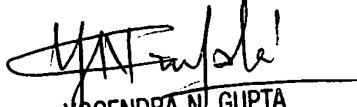
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Preeti Kumar
Examiner
Art Unit 1751

PK


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